REMARKS

The Office Action mailed January 6, 2009 has been received and reviewed. Each of claims 1, 2, 4, 13, 14 and 16 stands rejected. Claims 1 and 13 have been amended herein. Care has been exercised to introduce no new subject matter. For example, support can be found in the specification at ¶ [0036]. Reconsideration of the above-identified application in view of the above amendments and the following remarks is respectfully requested.

Rejections based on 35 U.S.C. § 112

Claims 1, 2, 4, 13, 14 and 16 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Office Action states that "maintaining thread settings associated with threads" in claim 1 is unclear as to whether each thread has its own thread settings or whether all threads have the same thread settings. See, Office Action, p. 2. As such, claim 1 has been amended to clarify this portion of the claim. Specifically, "wherein each of the first thread and the second thread includes a corresponding thread history and thread settings" has been added to a different portion of the claim. Further, the feature stated in the Office Action now recites "maintaining the thread settings associated with the first thread and the second thread."

The Office Action also states that "applying the context settings and the context dictionary of the user interface context in place of the thread settings of any thread accessing the user interface context" as recited in claim 1 is unclear as to why the context settings and dictionary are maintained if only the context settings and dictionary are applied to the user interface setting. *See id.* Applicants would like to direct the Examiner's attention to ¶¶ [0035]-

[0036] of the Specification. *See*, Specification, ¶¶ [0035]-[0036]. This portion of the Specification states that "[w]hile operating within context 310 the thread settings 530 may become the context settings 316 maintained within context 310," and once the thread has left the context, thread settings may be "restored to their prior content. . . ." *Id.* This "allows settings and dictionary information to be specified at the context level, rather than on a thread by thread basis." *Id.* While each thread has its own settings, these settings, in some embodiments of the present invention, such as the embodiment of independent claim 1, may be replaced by the context settings. *See id.* This "further allows additional services, such as catching exceptions caused by thread 510 while executing within context 310, to be provided." *Id.* Historical information, which is contained in the thread settings, may then be updated each time a thread enters and/or leaves a context, and contains information "regarding the history of the threads operations, such as contexts accessed by thread 510. . . ." *Id.* As such, it is respectfully submitted that claim 1, and specifically the portion recited above, is clear, and particularly points out and distinctly claims the subject matter which Applicants regard as the invention.

As such, Applicants respectfully request withdrawal of the § 112 rejections of claim 1. Claim 13 is rejected for the same reasons as claims, and therefore, Applicants request withdrawal of the § 112 rejections of claim 13 for the same reasons presented above for claim 1.

Rejections based on 35 U.S.C. § 103

A.) Applicable Authority

The basic requirements of a *prima facie* case of obviousness are summarized in MPEP §2143 through §2143.03. In order "[t]o establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art,

to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success [in combining the references]. Finally, the prior art reference (or references when combined) must teach or suggest all of the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)". *See* MPEP §2143. The Supreme Court in *Graham v. John Deere* counseled that an obviousness determination is made by identifying: the scope and content of the prior art; the level of ordinary skill in the prior art; the differences between the claimed invention and prior art references; and secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1 (1966). To support a finding of obviousness, the initial burden is on the Office to apply the framework outlined in *Graham* and to provide some reason, or suggestions or motivation found either in the prior art references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the prior art reference or to combine prior art reference teachings to produce the claimed invention. *See*, *Application of Bergel,* 292 F. 2d 955, 956-957 (1961).

Recently, the Supreme Court elaborated, at pages 13-14 of the KSR opinion, that "it will be necessary for [the Office] to look at interrelated teachings of multiple [prior art references]; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by [one of] ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the [patent application]." KSR v. Teleflex, 127 S. Ct. 1727 (2007). Further, in establishing a prima facie case of obviousness, the initial burden is placed on the Examiner. "To support the conclusion that the claimed invention is directed to obvious subject matter,

either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references. Ex parte Clapp, 227 USPQ 972, 972 (Bd. Pat. App. & Inter. 1985)." Id. See also MPEP §706.02(j) and §2142.

B.) Obviousness Rejection Based on the U.S. Patent No. 5,129,084 to Kelly Jr. et al., in view of U.S. Publication No. 2002/0019824 to Holder et al.

Claims 1, 4, 13 and 16 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,129,084 to Kelly Jr. et al., (hereinafter the "Kelly reference"), in view of U.S. Publication No. 2002/0019824 to Holder et al., (hereinafter the "Holder reference"). As the Kelly and Holder references, whether taken alone or in combination, fail to teach or suggest all of the features of each of the rejected claims, a *prima facie* case of obviousness has not been established, and Applicant therefore respectfully traverses this rejection, as hereinafter set forth.

Independent claim 1, as amended herein, is directed to a method for, in a threaded computing environment having a plurality of contexts, each context capable of containing a queue, context settings, a context dictionary, and objects, allocating the access of threads to a user interface context. The method includes receiving a request to access the user interface context from a first thread and determining whether the user interface context is presently being accessed by a second thread, wherein each of the first thread and the second thread includes a corresponding thread history and thread settings. Further, the method includes, if the user interface context is presently being accessed by a second thread, denying the request to access the user interface context received from the first thread. Also, if the user interface context is not presently being accessed by a second thread, the method includes allowing the request to access

the user interface context received from the first thread. Additionally, the method includes maintaining the thread settings associated with the first thread and the second thread, maintaining context settings in the user interface context, and applying the context settings and the context dictionary of the user interface context in place of the thread settings of any thread accessing the user interface context such that settings and dictionary information are specified at a context level, rather than on a thread level.

By contrast, the Kelly reference is generally directed toward an object based operating system for a multitasking computer system. *See,* Kelly Reference, Abstract. The invention of the Kelly reference is directed toward a multifaceted access control system, which supports multiple levels of visibility, allowing objects to be operated on only be processes with the object's range of visibility. *See id.* at col. 2, ll. 17-21. Mutexes, or flags, govern access to each and every container directory, and the purpose of a mutex is to ensure that only one thread accesses a particular resource at any one time. *See id.* at col. 7, ll. 26-32. Mutexes are used in the invention of the Kelly reference to synchronize access to container directories, object containers, linked lists of objects, and other types of data structures. *See id.* at col 7, ll. 40-43.

The Office Action admits that the Kelly reference fails to disclose many features of claim 1, including "maintaining context settings in the user interface context; and applying the context settings and the context dictionary of the user interface context in place of the thread settings of any thread accessing the user interface context." Office Action at p. 4. As a basis for its rejection of this portion of claim 1, the Office Action cites to a particular section of the Holder reference, and states that it "teaches the usefulness of utilizing parameters to define a resource ([0015]). This allows processes requiring the use of the resource to read resource specifying information ([0015])." *Id.*

It is respectfully submitted, however, that the Holder reference fails to cure the deficiencies of the Kelly reference, in that it also fails to teach or suggest "maintaining context settings in the user interface context; and applying the context settings and the context dictionary of the user interface context in place of the thread settings of any thread accessing the user interface context." Rather, the Holder reference is directed to a method for "generically describing and manipulating arbitrary data structures." Holder, Abstract. A method for accessing data that is managed by associated data management tools is described, and includes various steps, such as using a definition of physical and/or logical parameters required for locating the desired resource, reading resource-specific information, generating hierarchical control information reflecting the structure, and enabling an access to the resource by finding a component that can access the resource having at least one of the parameters. *See id.* at ¶ [0015].

As stated above, the Office Action cites generally to ¶ [0015] of the Holder reference to support its rejection that the Holder reference purportedly teaches or suggests "maintaining context settings in the user interface context; and applying the context settings and the context dictionary of the user interface context in place of the thread settings of any thread accessing the user interface context." *See* Holder reference at ¶ [0015]. Applicants respectfully disagree, and respectfully submit that the Holder reference cannot be used in this capacity to reject independent claim 1, as amended herein.

Claim 1 requires that, while the user interface context and the threads that can access the user interface context each have separate settings, the ***context settings*** of the user interface context ***be applied in place of the thread settings*** of any thread accessing the user interface context. This allows settings to be context specific, and not defined on a thread by thread basis or level. The Holder reference, rather, suggests that a definition of a parameter is

used for ***locating the desired resource,*** **not** during a period of time when the resource is being accessed by a thread, for example, as required by independent claim 1. *See* Holder reference at ¶ [0015]. Access is enabled by calling a resource access performer (such as a thread) "with at least one of the parameters and by evaluating the control information." *Id.* Therefore, the Holder reference uses parameters as a way of selecting resource access performers that are able to access the desired resource, but does not allow the settings of the thread (or resource access performer) to be replaced by the settings of the user interface context while the thread is accessing the user interface context. *See id.* Further, the Holder reference does not even mention a user interface context as what the resource access performer would be accessing. As such, there is no basis for using the Holder reference to reject independent claim 1.

Independent claim 13, as amended herein, is directed to one or more computer-storage media having computer-executable instructions embodied thereon that, when executed, perform a method for allocating the access of threads to a user interface context in a threaded computing environment having a plurality of contexts, each context capable of containing a queue, context settings, a context dictionary, and objects, the method for allocating the access of threads to a user interface context. The method includes receiving a request to access the user interface context from a first thread, wherein the user interface context comprises one or more objects, and determining whether the user interface context is presently being accessed by a second thread, wherein each of the first thread and the second thread includes a corresponding thread history and thread settings. Further, the method includes, if the user interface context is presently being accessed by a second thread, denying the request to access the user interface context received from the first thread, and if the user interface context is not presently being accessed by a second thread, allowing the request to access the user interface context received

from the first thread. Additionally, the method includes maintaining the thread settings associated with the first thread and the second thread, maintaining context settings in the user interface context, maintaining context dictionary in the user interface context, wherein the context dictionary comprises information from one or more sources, and applying the context settings and the context dictionary of the user interface context in place of the thread settings of any thread accessing the user interface context such that settings and dictionary information are specified at a context level, rather than on a thread level.

By contrast, and as mentioned above, the Kelly reference is generally directed toward an object based operating system for a multitasking computer system. *See,* Kelly Reference, Abstract. The invention of the Kelly reference is directed toward a multifaceted access control system, which supports multiple levels of visibility, allowing objects to be operated on only be processes with the object's range of visibility. *See id.* at col. 2, ll. 17-21. Mutexes, or flags, govern access to each and every container directory, and the purpose of a mutex is to ensure that only one thread accesses a particular resource at any one time. *See id.* at col. 7, ll. 26-32. Mutexes are used in the invention of the Kelly reference to synchronize access to container directories, object containers, linked lists of objects, and other types of data structures. *See id.* at col 7, ll. 40-43.

The Office Action admits that the Kelly reference fails to disclose many features of claim 13, including "maintaining context settings in the user interface context; and applying the context settings and the context dictionary of the user interface context in place of the thread settings of any thread accessing the user interface context." Office Action at p. 4. As a basis for its rejection of this portion of claim 13, the Office Action cites to a particular section of the Holder reference, and states that it "teaches the usefulness of utilizing parameters to define a

resource ([0015]). This allows processes requiring the use of the resource to read resource specifying information ([0015])." *Id.*

It is respectfully submitted, however, that the Holder reference fails to cure the deficiencies of the Kelly reference, in that it also fails to teach or suggest "maintaining context settings in the user interface context; and applying the context settings and the context dictionary of the user interface context in place of the thread settings of any thread accessing the user interface context." Rather, the Holder reference is directed to a method for "generically describing and manipulating arbitrary data structures." Holder, Abstract. A method for accessing data that is managed by associated data management tools is described, and includes various steps, such as using a definition of physical and/or logical parameters required for locating the desired resource, reading resource-specific information, generating hierarchical control information reflecting the structure, and enabling an access to the resource by finding a component that can access the resource having at least one of the parameters. *See id.* at ¶ [0015].

As stated above, the Office Action cites generally to ¶ [0015] of the Holder reference to support its rejection that the Holder reference purportedly teaches or suggests "maintaining context settings in the user interface context; and applying the context settings and the context dictionary of the user interface context in place of the thread settings of any thread accessing the user interface context." Applicants strongly disagree, and respectfully submit that the Holder reference cannot be used in this capacity to reject independent claim 13, as amended herein.

Claim 13 requires that, while the user interface context and the threads that can access the user interface context each have separate settings, the ***context settings*** of the user interface context ***be applied in place of the thread settings*** of any thread accessing the user

interface context. This allows settings to be context specific, and not defined on a thread by thread basis or level. The Holder reference, rather, suggests that a definition of a parameter is used for ***locating the desired resource,*** **not** during a period of time when the resource is being accessed by a thread, for example, as required by independent claim 1. *See* Holder reference at ¶ [0015]. Access is enabled by calling a resource access performer (such as a thread) "with at least one of the parameters and by evaluating the control information." *Id.* Therefore, the Holder reference uses parameters as a way of selecting resource access performers that are able to access the desired resource, but does not allow the settings of the thread (or resource access performer) to be replaced by the settings of the user interface context while the thread is accessing the user interface context. *See id.* Further, the Holder reference does not even mention a user interface context as what the resource access performer would be accessing. As such, there is no basis for using the Holder reference to reject independent claim 13.

In the context of both independent claims 1 and 13, the Office Action states that although Kelly does not teach that a resource is a user interface context, "[i]t would have been obvious to one of ordinary skill in the art at the time of the invention that the user interface context is a resource since threads frequently require access to the user." *Id.* at p. 4.

MPEP 2143.03 states that to establish a prima facie case of obviousness of a claimed invention, "all the claim limitations must be taught or suggested by the prior art." MPEP 2143.03 (*citing* In re Royka, 490 F.2d 981). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *Id.* (*citing* In re Wilson, 424 F.2d 1382). Further, MPEP 2144.03 states that "[o]fficial notice unsupported by documentary evidence should only be taken by the examiner where the facts asserted to be well-known, or to be common knowledge in the art are capable of instant and unquestionable demonstration as

being well-known." MPEP 2144.03. Also, "[i]t would not be appropriate for the examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known." *Id.* (original emphasis). As such, Applicants respectfully request that documentary evidence be provided to support these conclusions, as it is believed that neither the Kelly reference nor the Holder reference teach or suggest the feature recited above, which includes the resource being a user interface context. Further, Applicants do not agree that these are facts that can be considered "well-known, or to be common knowledge" and "capable of instant and unquestionable demonstrations as being well-known." *Id.* Specifically, Applicants would like to point out that the resource may be any type of resource, not just a user interface context, and therefore it cannot be well-known that a resource has to be a user interface context.

As such, it is respectfully submitted that, for at least the reasons stated above, the combination of the Kelly reference and the Holder reference fails to teach or suggest all of the limitations of independent claims 1 and 13, as amended herein, and as such, a *prima facie* case of obviousness of claims 1 and 13 cannot be established utilizing the Kelly and Holder references. Accordingly, Applicants respectfully request withdrawal of the rejection of independent claims 1 and 13 under 35 U.S.C. §103(a). Independent claims 1 and 13 are believed to be in condition for allowance and such favorable action is respectfully requested.

Dependent claim 4 is directed to the method for allocating the access of threads to a user interface context of claim 13, the method further comprising restoring the thread settings when a thread departs the user interface context. In reference to both claims 4 and 16, the Office Action states that "Kelly and Holder do not explicitly teach restoring the thread settings when a thread departs the user interface context." Office Action at p. 5. It further states that "[i]t would

have been obvious to one of ordinary skill in the art at the time of the invention to include restoring the thread settings after the thread finished using the resource." *Id.*

As stated above, MPEP 2143.03 states that to establish a prima facie case of obviousness of a claimed invention, "all the claim limitations must be taught or suggested by the prior art." MPEP 2143.03 (*citing* In re Royka, 490 F.2d 981). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *Id.* (*citing* In re Wilson, 424 F.2d 1382). Further, MPEP 2144.03 states that "[o]fficial notice unsupported by documentary evidence should only be taken by the examiner where the facts asserted to be well-known, or to be common knowledge in the art are capable of instant and unquestionable demonstration as being well-known." MPEP 2144.03. Also, "[i]t would not be appropriate for the examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known." *Id.* (original emphasis). As such, Applicants respectfully request that documentary evidence be provided to support these conclusions, as it is believed that neither the Kelly reference nor the Holder reference teach or suggest the feature recited above, which includes restoring the thread settings after the thread finished using the resource. Further, Applicants do not agree that these are facts that can be considered "well-known, or to be common knowledge" and "capable of instant and unquestionable demonstrations as being well-known." *Id.* For example, in an alternate embodiment, the threads may not be restored to their original settings, and thus the feature recited above of cannot be considered well-known or common knowledge.

As such, withdrawal of the 35 U.S.C. §103(a) rejections of claims 4 and 16 is respectfully requested. Each of claims 4 and 16 is believed to be in condition for allowance and such favorable action is respectfully requested.

C.) Obviousness Rejection Based on the U.S. Patent No. 5,129,084 to Kelly Jr. et al., in view of U.S. Publication No. 2002/0019824 to Holder et al., in further view of U.S. Patent No. 6,293,712 to Coutant

Claim 2 and 14 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kelly and Holder in further view of U.S. Patent No. 6,293,712 to Coutant, (hereinafter the "Coutant reference"). Each of claims 2 and 14 depends, either directly or indirectly, from independent claims 1 or 13 and, accordingly, it is respectfully submitted that the Kelly reference, the Holder reference, and the Coutant reference, whether taken alone or in combination, fail to teach or suggest all of the limitations of these claims for at least the above-cited reasons. As such, withdrawal of the 35 U.S.C. §103(a) rejections of claims 2 and 14 is respectfully requested. Each of claims 2 and 14 is believed to be in condition for allowance and such favorable action is respectfully requested.

CONCLUSION

For at least the reasons stated above, claims 1, 2, 4, 13, 14, and 16 are now in condition for allowance. Applicants respectfully request withdrawal of the pending rejections and allowance of the claims. If any issues remain that would prevent issuance of this application, the Examiner is urged to contact the undersigned – 816-474-6550 or emcfarland@shb.com (such communication via email is herein expressly granted) – to resolve the same. It is believed that no fee is due, however, the Commissioner is hereby authorized to charge any amount required to Deposit Account No. 19-2112.

Respectfully submitted,

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